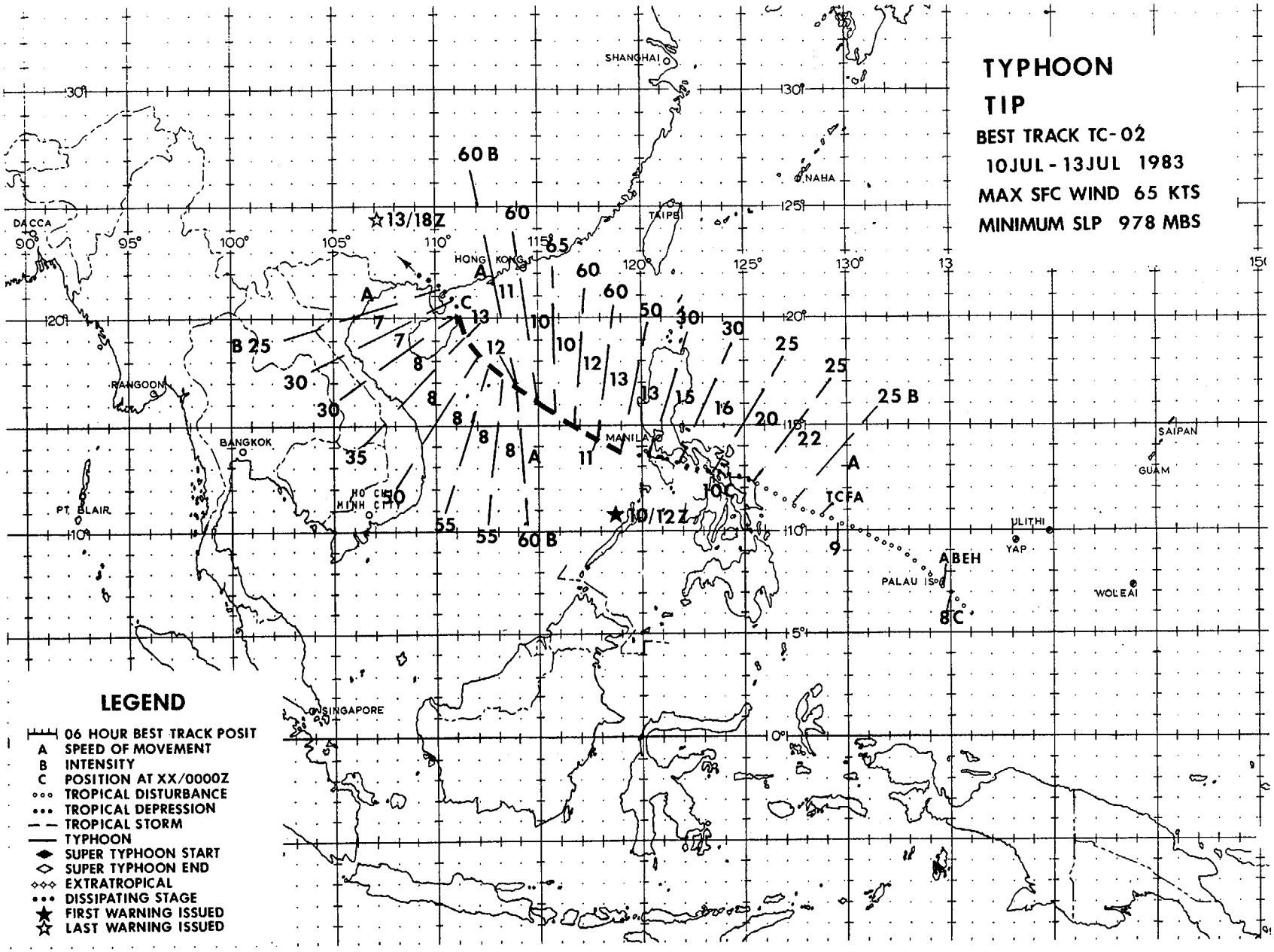
TYPHOON
TIP
BEST TRACK TC-02
10JUL - 13JUL 1983
MAX SFC WIND 65 KTS
MINIMUM SLP 978 MBS
LEGEND
06 HOUR BEST TRACK POSIT
A SPEED OF MOVEMENT
B INTENSITY
C POSITION AT XX/0000Z
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
SUPER TYPHOON START
SUPER TYPHOON END
EXTRATROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED
LAST WARNING ISSUED
☆13/18Z
★10/12Z
TCFA
SHANGHAI
NAHA
TAIPEI
HONG KONG
DACCA
RANGOON
BANGKOK
MANILA
SAIPAN
GUAM
ULITHI
YAP
ABEH
PALAU ISP
WOLEAI
PT. BLAIR
HO CHI MINH CITY
SINGAPORE

During late June and early July several tropical disturbances were monitored by JTWC. All of these, with the exception of Tropical Storm Sarah (01W), originated in the Philippine Sea and moved westward without developing into significant tropical cyclones. The combination of the rugged Philippine terrain and strong upper-level flow in the South China Sea was sufficient deterrent to development.

On 8 July another disturbance became evident in the Philippine Sea as a persistent area of convective activity near 8N 134 E. Synoptic data indicated that the disturbance was poorly organized with an MSLP of 1008 mb.

On the following day, the disturbance was located near 11N 129E and appeared somewhat more organized on satellite imagery. A weather reconnaissance aircraft on an investigative mission east of Samar was unable to locate a closed circulation, but found a broad area of low presures with maximum surface winds of 25 kt (13 m/s) and MSLP of 1004 mb. In spite of the apparent absence of a well defined surface circulation, a TCFA was issued at 090841Z. The alert was issued because the disturbance was entering an area of strong upper-level divergence associated with a TUTT cell to the northeast. JTWC continued to monitor this disturbance as it moved rapidly across the Philippines, however synoptic data from Philippine land stations indicated that the disturbance remained loosely organized.

The first warning was issued as the disturbance, now tropical depression 02W, entered the South China Sea north of Mindoro. Synoptic data indicated the presence of a well defined surface circulation with 30 kt (15 m/s) winds and MSLP of 998 mb. From the initial warning, movement to the northwest toward Hainan Island was forecast, with continued intensification and then weakening late in the period. This forecast scenario was based on the expectation that the mid-level easterly steering currents and strong vectical shear in the area whould persist through the forecast period.

Tip lived up to expectations, moving as expected and achieving typhoon intensity at 111200Z. Figure 3-02-1 shows Tip near maximum intensity on the 11th. The effects of the strong upper-level flow are apparent as Tip appears as an exposed low-level circulation with its convection displaced to the southwest. The circulation appearing on the right hand side of the picture is the disturbance which later developed into Typhoon Vera (03W). Figure 3-02-2 is the 200 mb analysis for the area at the time of Tip's maximum intensity. Note the strong northeasterly flow over Tip and the divergent area in which Tip formed to the east.

After attaining maximum intensity of 65 kt (33 m/s) on the 11th, Tip continued to move northwestward and weakened as an exposed low-level circulation. Tip made landfall near Chan Chiang, China on the 13th with maximum sustained winds of 30 kt (15 m/s) and dissipated rapidly over land.

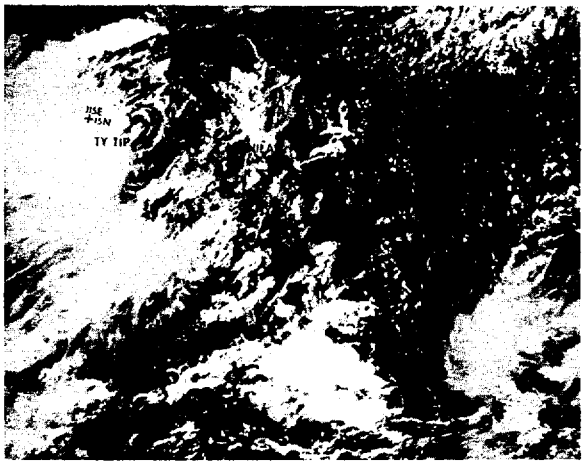

Figure 3-02-1. Typhoon Tip at maximum intensity in the South China Sea. Note the effects of the strong upper-level flow, displacing Tip's convection to the southwest and exposing the low-level circulation. (110644Z NOAA 7 visual imagery).

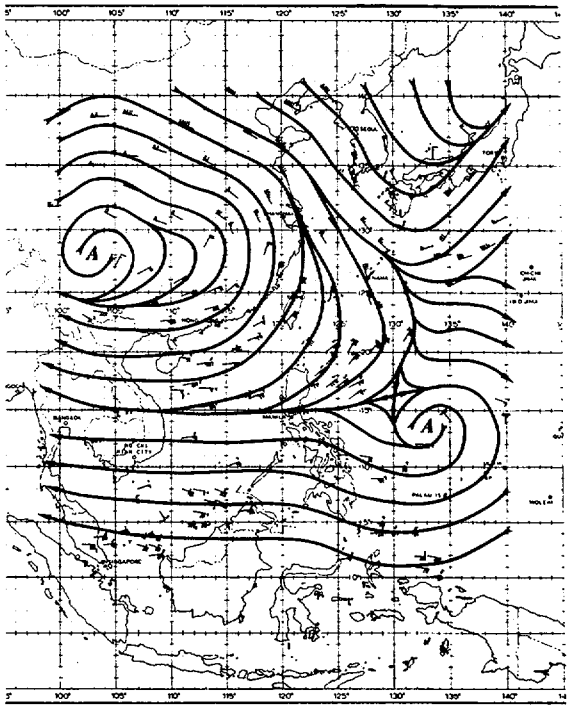

Figure 3-02-2. 111200Z July 200 mb analysis. Note strong northeasterly flow in the South China Sea.